

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Medico Industries, Inc.

Northeastern Pennsylvania Industrial Resource Center

Medico Industries, Inc. Forges Ahead With Strategic Approach to Lean

Client Profile:

As a cost effective manufacturer of projective and warhead metal parts, Medico Industries, Inc. is a supplier of the hollow shell 60mm and 81 mm high explosive, smoke and practice metal parts. In addition to machining facilities, Medico has presses capable of manufacturing hot and cold extrusions. The operations that they perform are backward extruding, cold coining, wiping and nosing. The company employs 300 people at its facility in Wilkes Barre, Pennsylvania.

Situation:

The U. S. Department of Defense (DoD) needed to increase the supply of projectiles to the War Fighter. DoD began a Lean 6 Sigma approach to improve the supply chain. More facilities were established to complete the assembly, which required Medico Industries to increase their output while maintaining their perfect quality performance. The Northeastern Pennsylvania Industrial Resource Center (NEPIRC), a NIST MEP network affiliate, met with the DoD team and Medico Industries to establish a program for ramping up the production, performance metrics to measure the progress, and communication with the other companies involved with the supply chain initiative. The first step was to establish an overall transformational goal, to meet an increased demand for projectile bodies while maintaining superior quality to meet every customer requirement and deliver the products complete, perfect quality, and on time.

Solution:

NEPIRC met with the Medico Industries team and established a 'Strategic Plan for Growth.' The Strategic Plan included Medico Industries' core values/beliefs, target markets, one-year plan, five-year plan, and key performance measures. The Medico Industries team agreed that a Lean Business approach would lead the transformation for growth by first establishing measures to guarantee the effectiveness of the manufacturing system and then Value Stream Analysis for improving the efficiency of the system. NEPIRC was selected to facilitate this effort while steering the team through the Value Stream Analysis. The team was prepared to invest in innovative technological approaches for improving their overall performance. The Medico team's first task was to fully understand the customer needs. DoD supplied the requirements for the ramp up to supply the other facilities which included the inventory build required for each of these facilities to achieve first piece approval. NEPIRC trained the Medico team in using Value Stream Analysis. The team identified seven different Value Streams within the facility, and prioritized their first Value Stream Analysis to the customer needs. A current state value stream, future state value stream, and an Implementation action plan was created for each of the seven Value Streams. As the improvements were being established, NEPIRC began acting as a Strategic Advisor to keep the activities on course, and assisted in updating the Value Streams to the 'new' current state and establishing the new future state and action plans. With NEPIRC's assistance, Medico experienced a reduction in lead time, an increase in capacity, an improved in-process quality result, an increase in production, and total customer satisfaction. As an

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additional benefit, a Management Operations System (MOS) was created for monitoring the production performance of each work cell. The MOS became the new Production Control system for identifying performance deficiencies on an hourly basis. The system is also used for redirecting labor assignments to address any processing inefficiencies. As a result of this assistance from NEPIRC, the company now will increase throughput to meet contractual requirements. The anticipated project impact resulting from this project will be customer satisfaction, job growth, additional sales, productivity improvement, perfect quality, and future process capability, by identifying the corporate strategy and eliminating process waste. Additional investments were made in the plane, the equipment, and most importantly in workforce skills.

Results:

- * Increased sales by over 50 percent.
- * Increased jobs by 25 percent.

Testimonial:

"With the aid of NEPIRC, we increased production, reduced inefficiencies, maintained quality standards and learned that paper tools are as important as wrenches in meeting our customer's goals."

Cataldo Medico, President, Manufacturing Division